



OGSI

Oxygen Generating Systems, Inc.

Pressure Swing Adsorption Technology

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Products

If you use more than one cylinder of oxygen per week, **OGSI** can provide an oxygen generator that will pay for itself in less than two years. The generators can be sized for various requirements starting at two standard cubic feet per hour (SCF/Hr) up to 5,000 SCF/Hr.

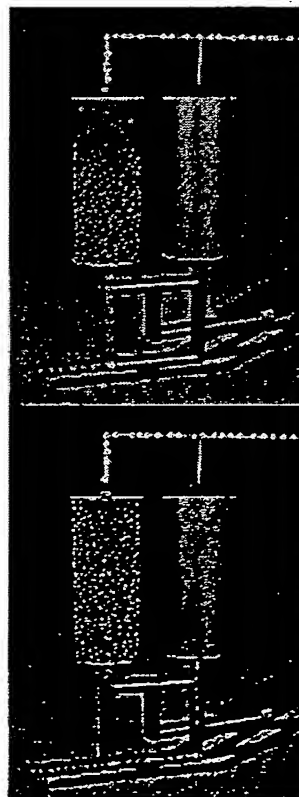
By connecting the **OGSI** generator to your air supply (systems with air compressors are available) you can produce oxygen on demand at considerable savings using Pressure Swing Adsorption (PSA) Technology.

Stage 1

Compressed air is fed into the first molecular sieve bed. Nitrogen is trapped, while Oxygen is allowed to flow through.

Stage 2

When the sieve in the first bed becomes full of nitrogen, the airflow is then directed into the second bed.

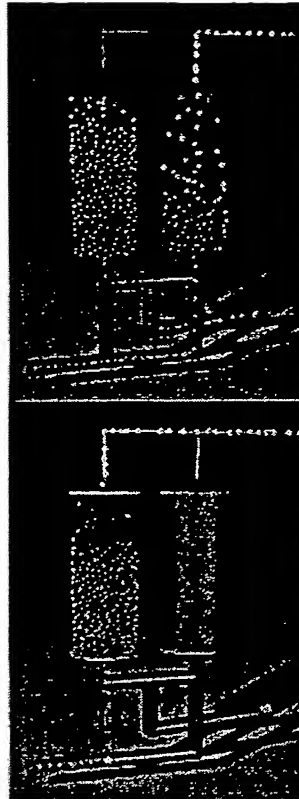


Stage 3

As the second bed separates the oxygen from the nitrogen, the first bed vents its nitrogen into the atmosphere.

Stage 4

Compressed air is once again fed into the first bed, and the process is repeated continuously. A constant flow of oxygen is produced.



The air we breathe contains roughly 78% nitrogen, 21 % oxygen, .9% argon and the balance is other gases. The oxygen is separated from the air using PSA Technology. The process centers around a molecular sieve known as Zeolite.

At high pressures the sieve adsorbs or attracts nitrogen, and at low pressures it desorbs or releases nitrogen. The **OGSI** generator consists of two tanks filled with sieve. As high pressure air (about 70 psi) is introduced into the first tank, it passes through the sieve and nitrogen is adsorbed. The remaining oxygen and argon are piped to a buffer or storage tank.

Just before the first tank becomes completely saturated with nitrogen, feed air is redirected to the second tank which then repeats the above process. The first tank is then vented to atmosphere which allows the nitrogen to desorb or release from the sieve. To complete the regeneration of the first tank, a small amount of the oxygen is used to purge it. This process is completed over and over again until the demand for oxygen is met. Under normal operating conditions, which includes the use of clean dry air for separation, the sieve will last indefinitely.

Productivity of a PSA generator is dependent on the oxygen purity required. A generator can produce significantly more oxygen at 90% purity than it can at 95.4%, with a relatively small increase in feed air. By means of a PLC or some other micro processor based controller, it is practical on larger generators for the user to change the swing cycles. Purity and flow levels can be selected and optimized based on changing demand variables.

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About Us

Oxygen Generating Systems, Inc. (OGSI) introduces a new line of oxygen generators designed specifically for industrial applications. Incorporating the latest in Pressure Swing Adsorption (PSA) Technology, these PLC controlled generators provide the best oxygen recovery rates for fractional tonnage machines currently available.

OGSI standard oxygen generators make up to 95% pure oxygen on demand (the high purity system can produce up to 99% pure oxygen), eliminating the need, and reducing the cost of bottled or liquid oxygen. OGSI has developed a Windows™ based Payback Analysis Software that is available free upon request. For users of as little as two cylinders of oxygen per week, the program illustrates a payback for the generator in 18 months or less. Larger users can enjoy even greater returns.

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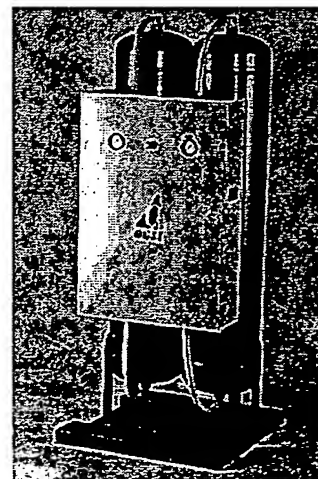
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Contact Information

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Hot Products

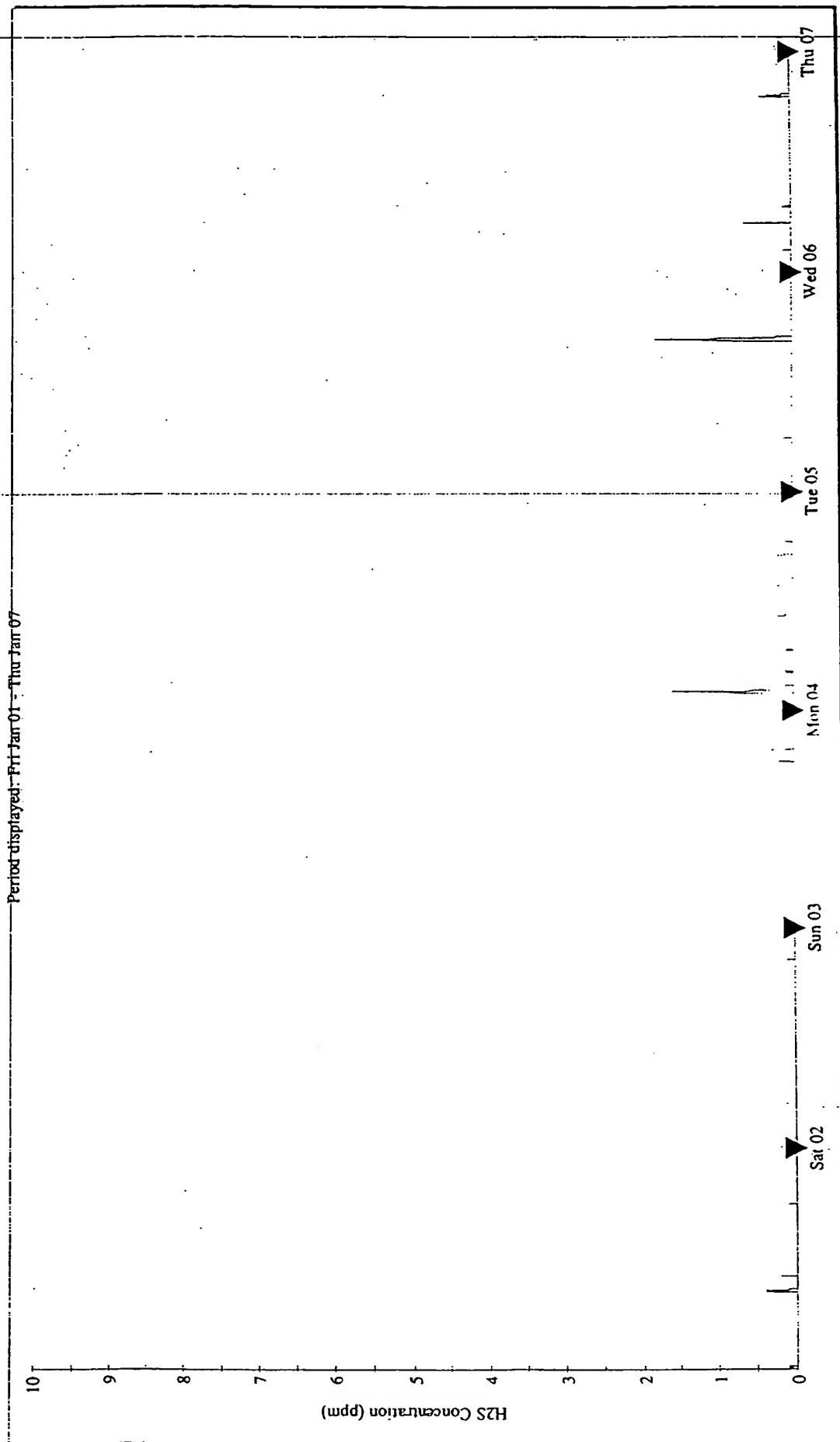


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- [Multi-Ton Oxygen Generator Plants](#)

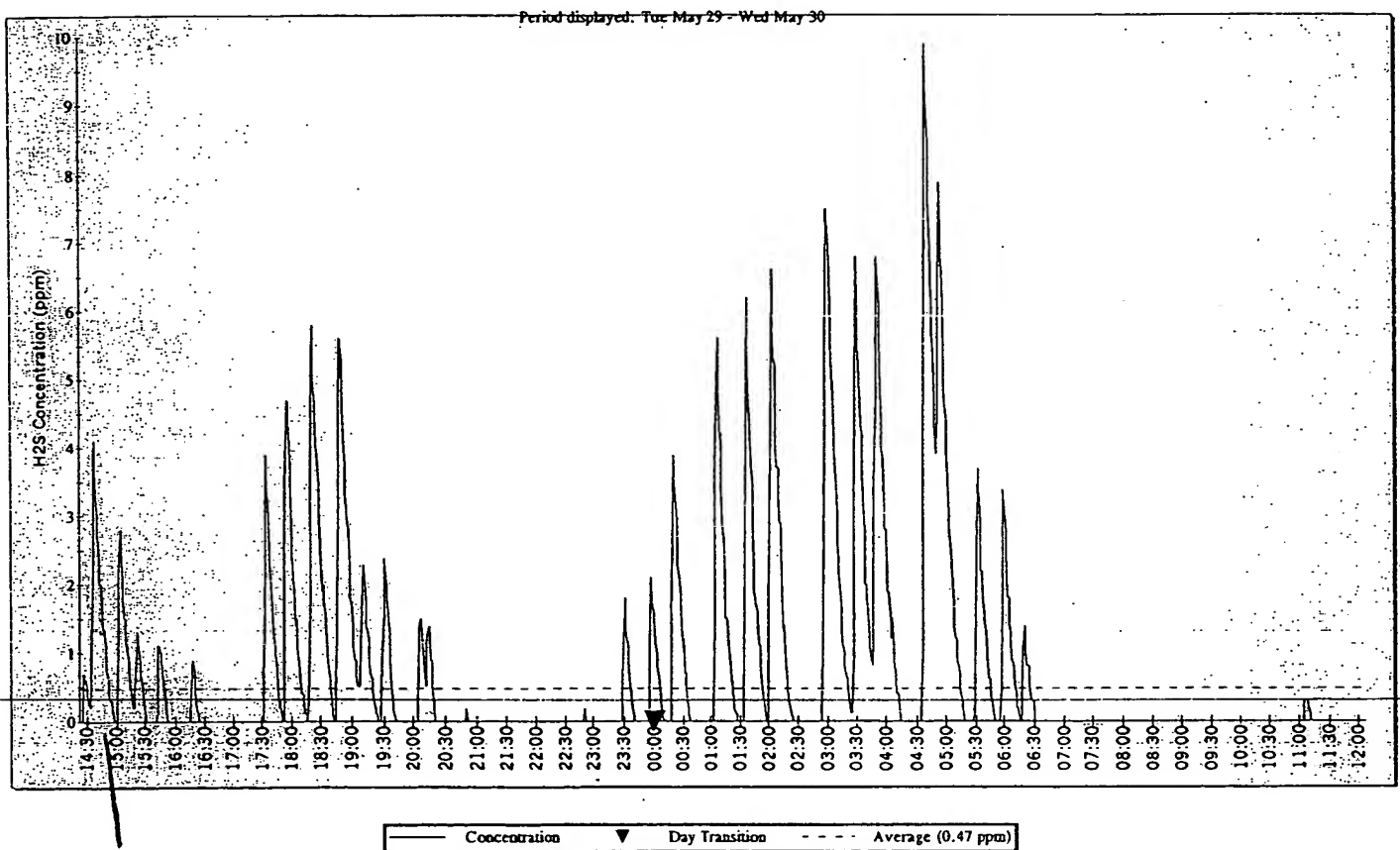
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EBS1161501 OZONE TEST (OdaLog: 3110200)



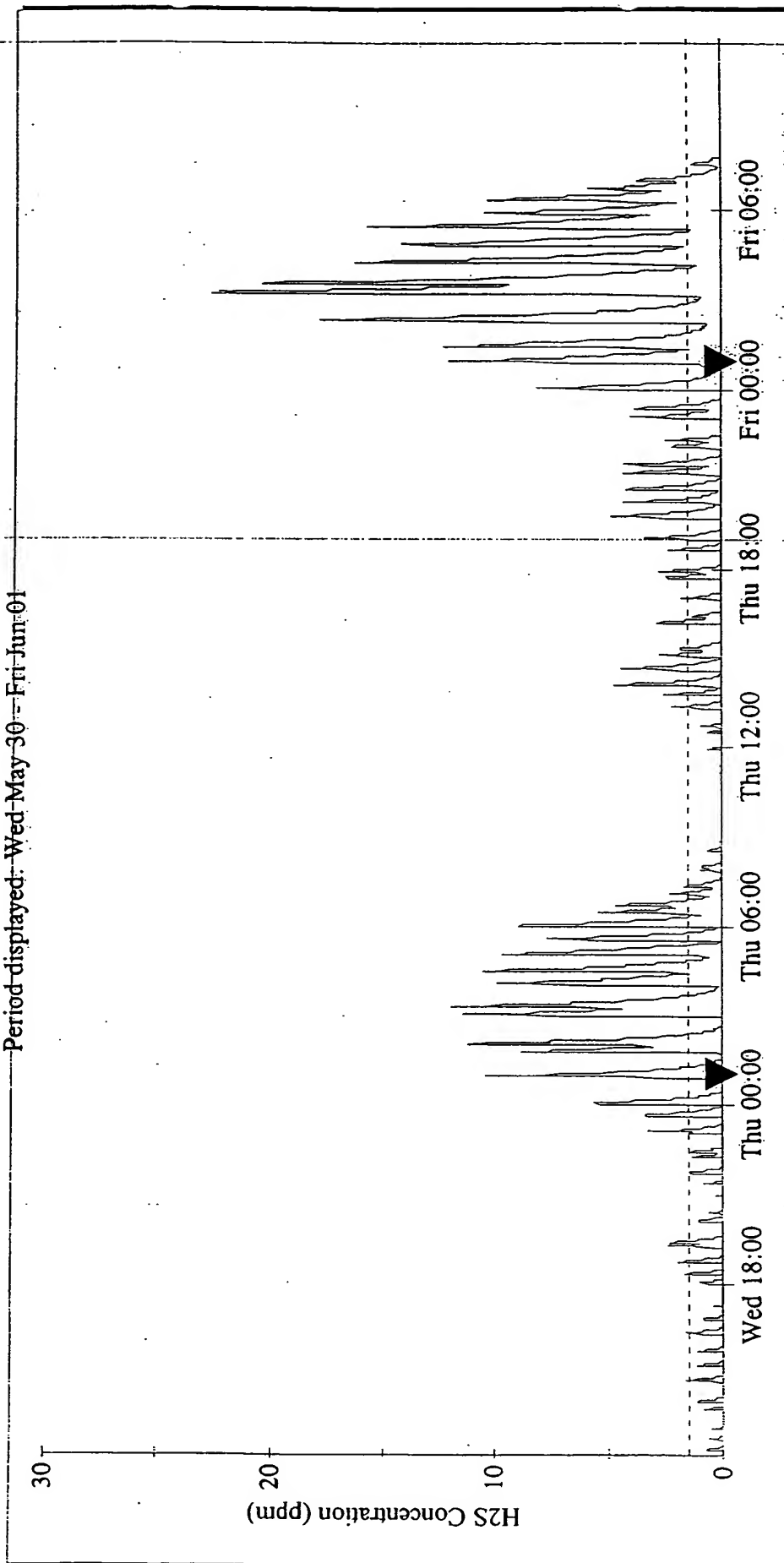
EBS-8-5-29-01 ADDING OZONE (OdaLog: 3021321)



Started
OZONE
Bioxide Raw Out

EBS-8-5-30-01 OZONE (OdaLog: 3021321)

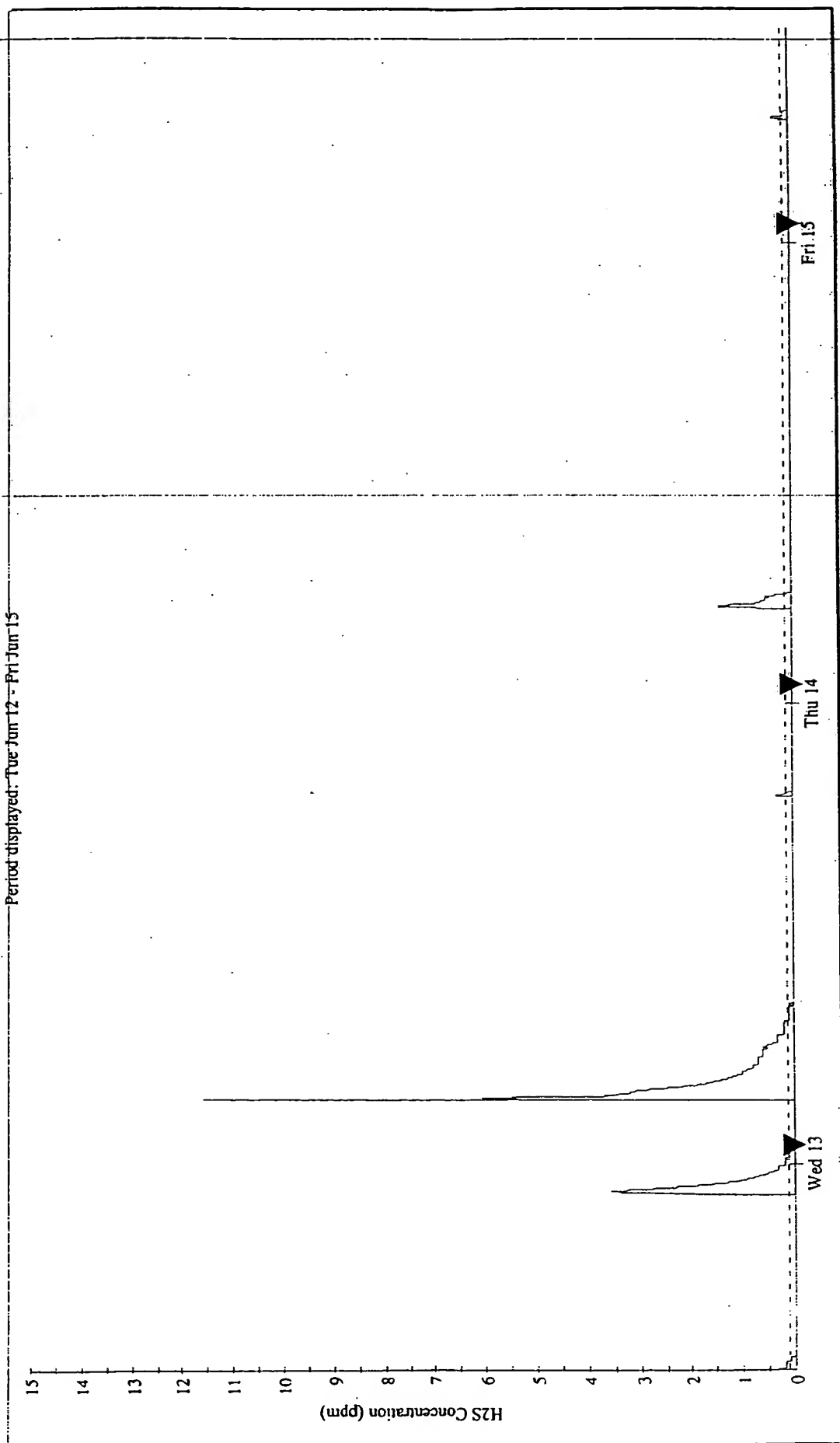
Period displayed: Wed May 30 - Fri Jun 01



Concentration
 ▼ Day Transition
Average (1.50 ppm)

EBS11 061201 OZONE (OdaLog: 3110200)

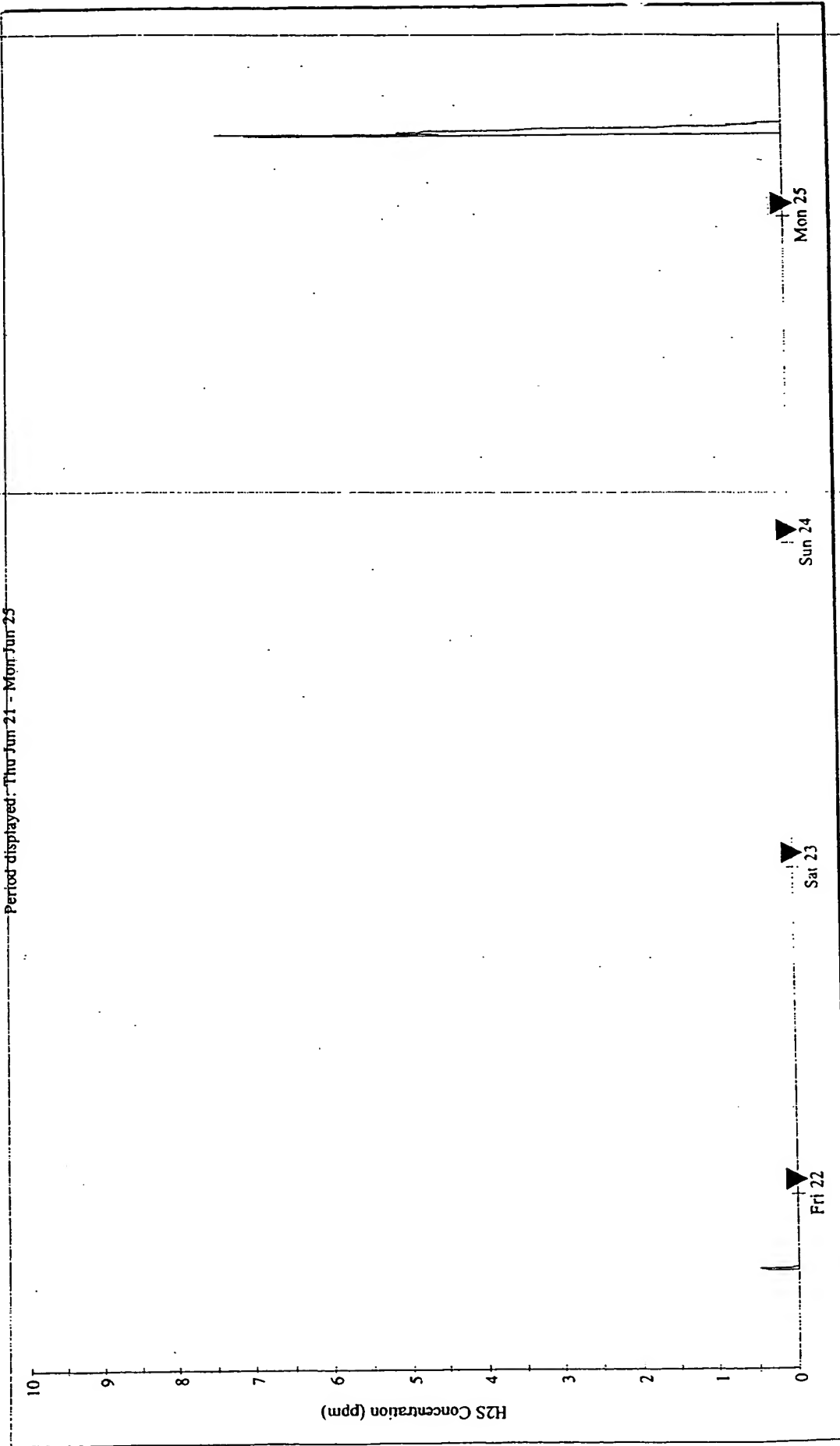
Period displayed: Tue Jun 12 - Fri Jun 15



— Concentration ▼ Day Transition - - - Average (0.12 ppm)

EBS11062201 (OdaLog: 3021321)

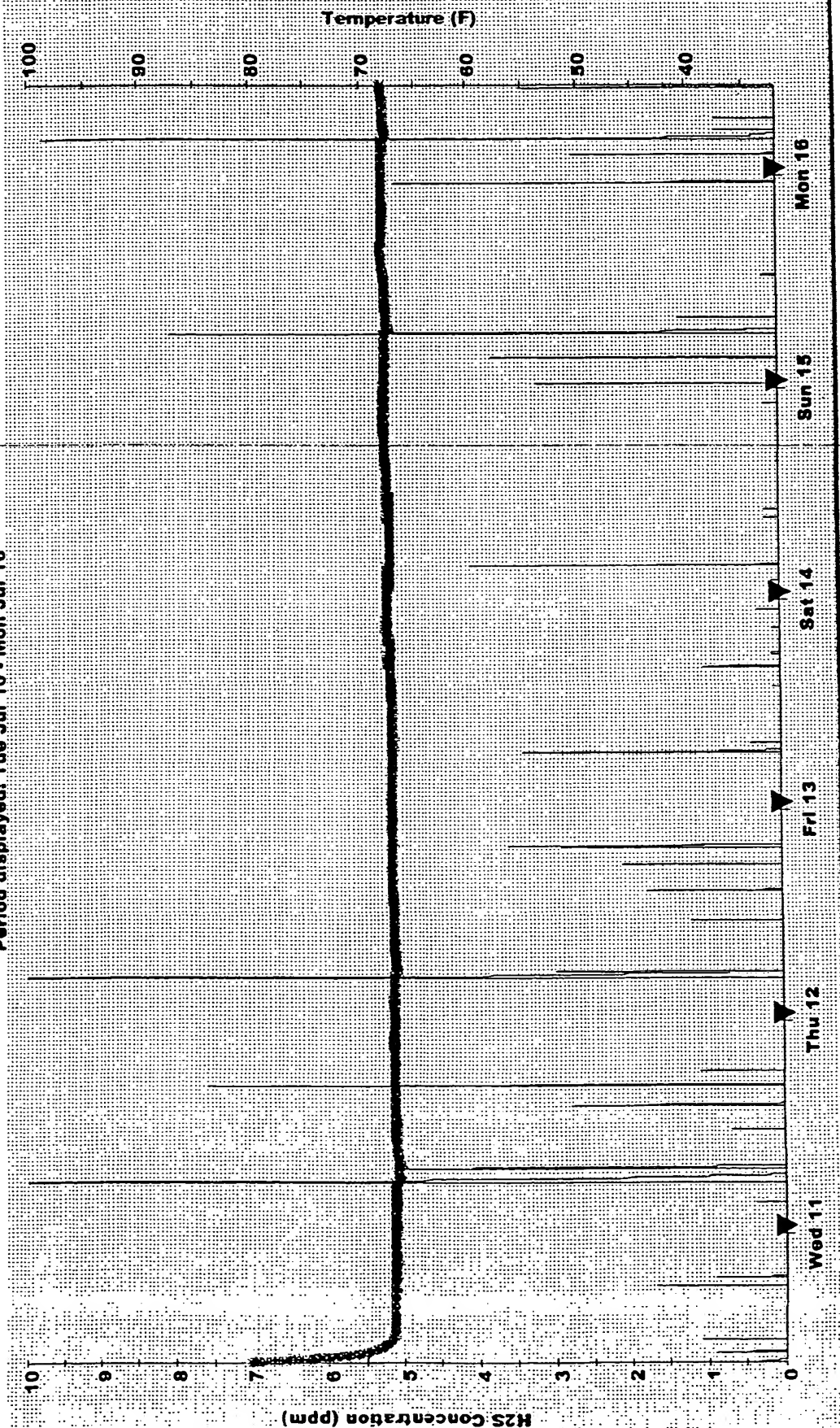
Period displayed: Thu Jun 21 - Mon Jun 25



Concentration Day Transition Average (-0.54 ppm)

OZONE TEST EBS11-7-10-01 (OdaLog: 3021316)

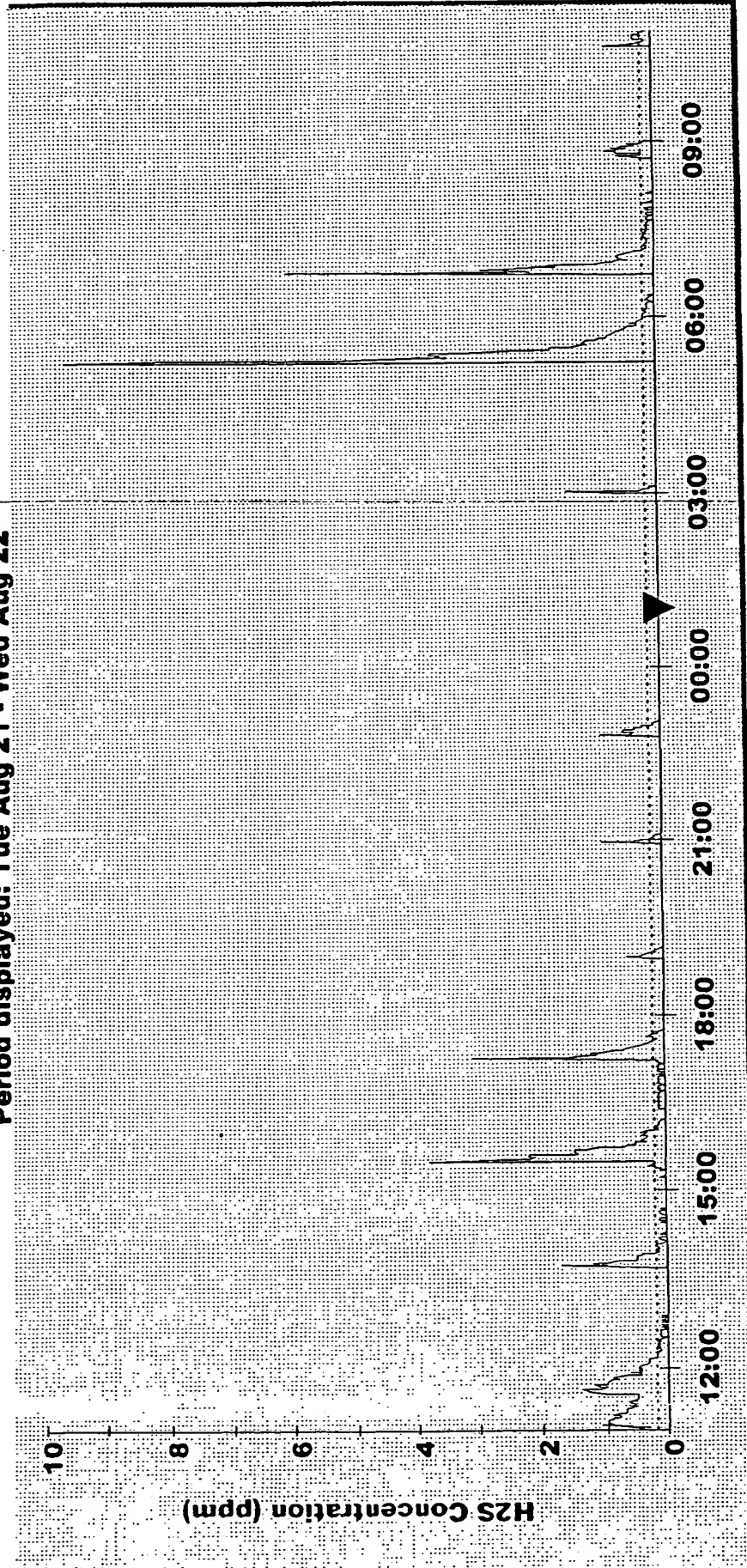
Period displayed: Tue Jul 10 - Mon Jul 16



Concentration ▼ Day Transition ----- Average (-0.18 ppm) ----- Temperature

EBS-11-08-21-01 OZONE (OdaLog: 3021321)

Period displayed: Tue Aug 21 - Wed Aug 22

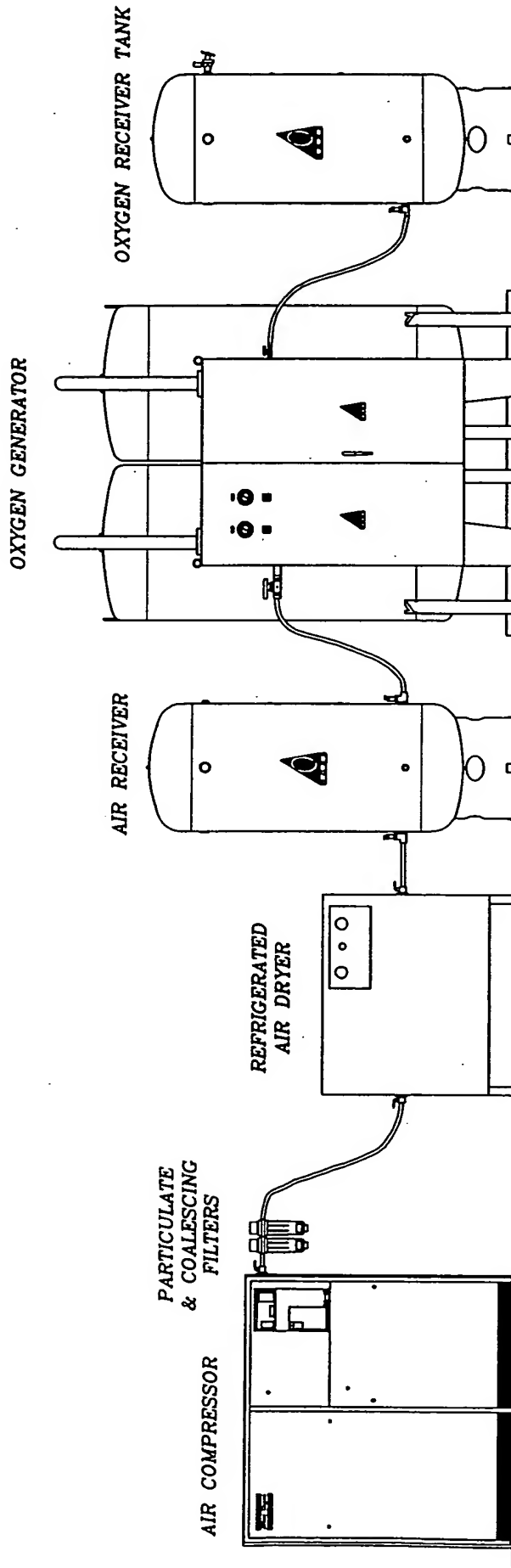




Concentration

Day Transition

Average (0.19 ppm)

BILL OF MATERIALS					
	ITEM	QTY.	DESCRIPTION	COST P/N	
	1				
	2				

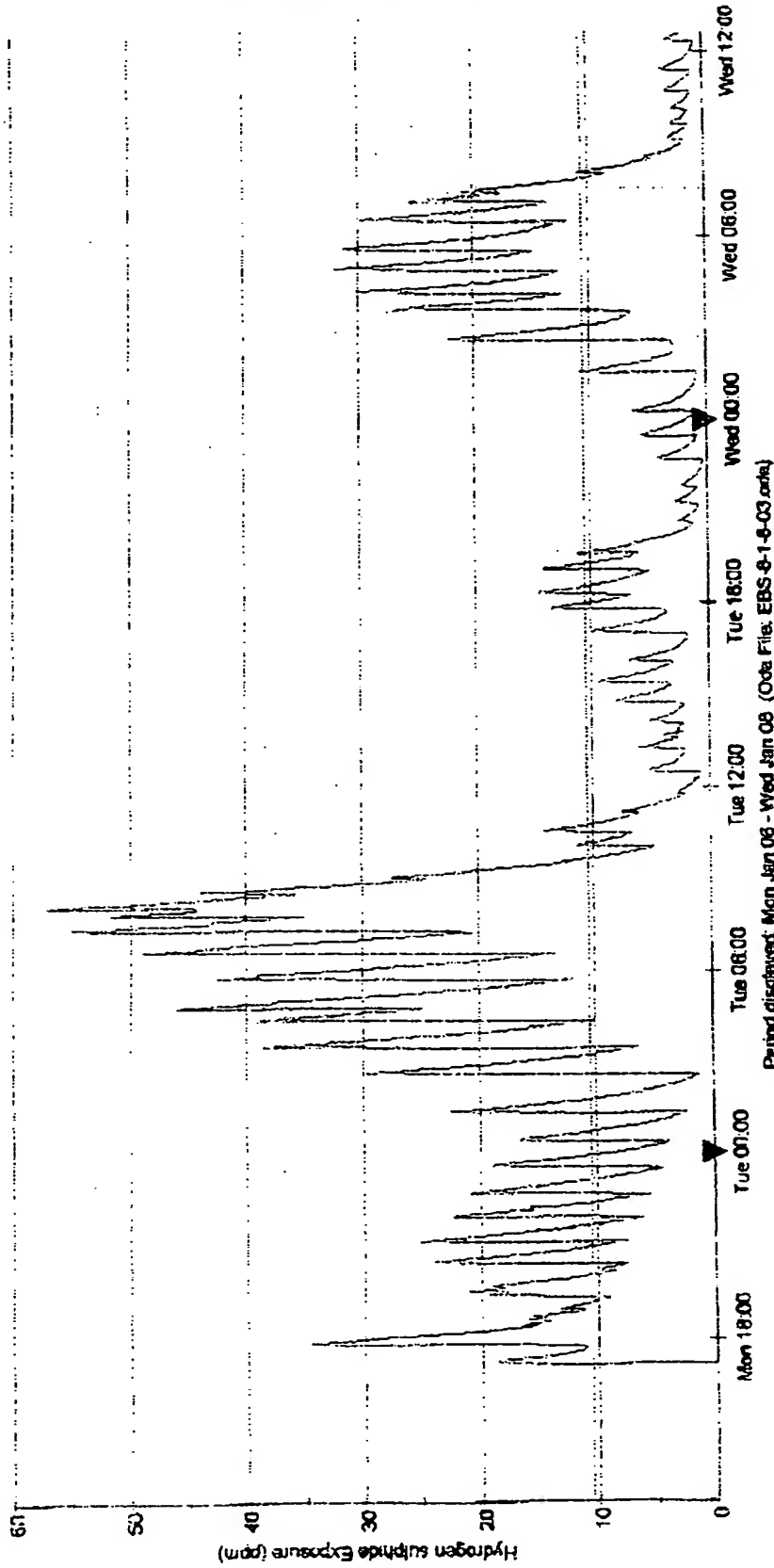


DRAWING NO. 5000060	DATE 03/29/00	DESIGNED BY K.C. ZANGHI	CHECKED BY J.M. McMAHON	CLASS CODE MANUFACTURING	* ALL DIMENSIONS UNLESS INDICATED OTHERWISE ARE IN INCHES TOLERANCES ARE UNLESS NOTED OTHERWISE FINISHES ARE UNLESS NOTED OTHERWISE SURFACE FINISHES ARE UNLESS NOTED OTHERWISE ALL DIMENSIONS ARE TO BE CONSIDERED UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE TO BE CONSIDERED UNLESS OTHERWISE SPECIFIED
2221 Niagara Falls Boulevard Niagara Falls, New York 14304 Phone: (716)751-1466 Fax: (716)751-1369 Toll Free (800) 414-0032					TITLE TYPICAL EQUIPMENT LAYOUT w/ SEPARATE DRYER
					PROJECT NA
 TWO HOLE PUNCHION					EFFECTIVITY OR SERIAL NO. 12/06/98
REVISIONS					SHEET 1 OF 1

*Oxygen High pressure
System Results*

Att. Scott Deckard

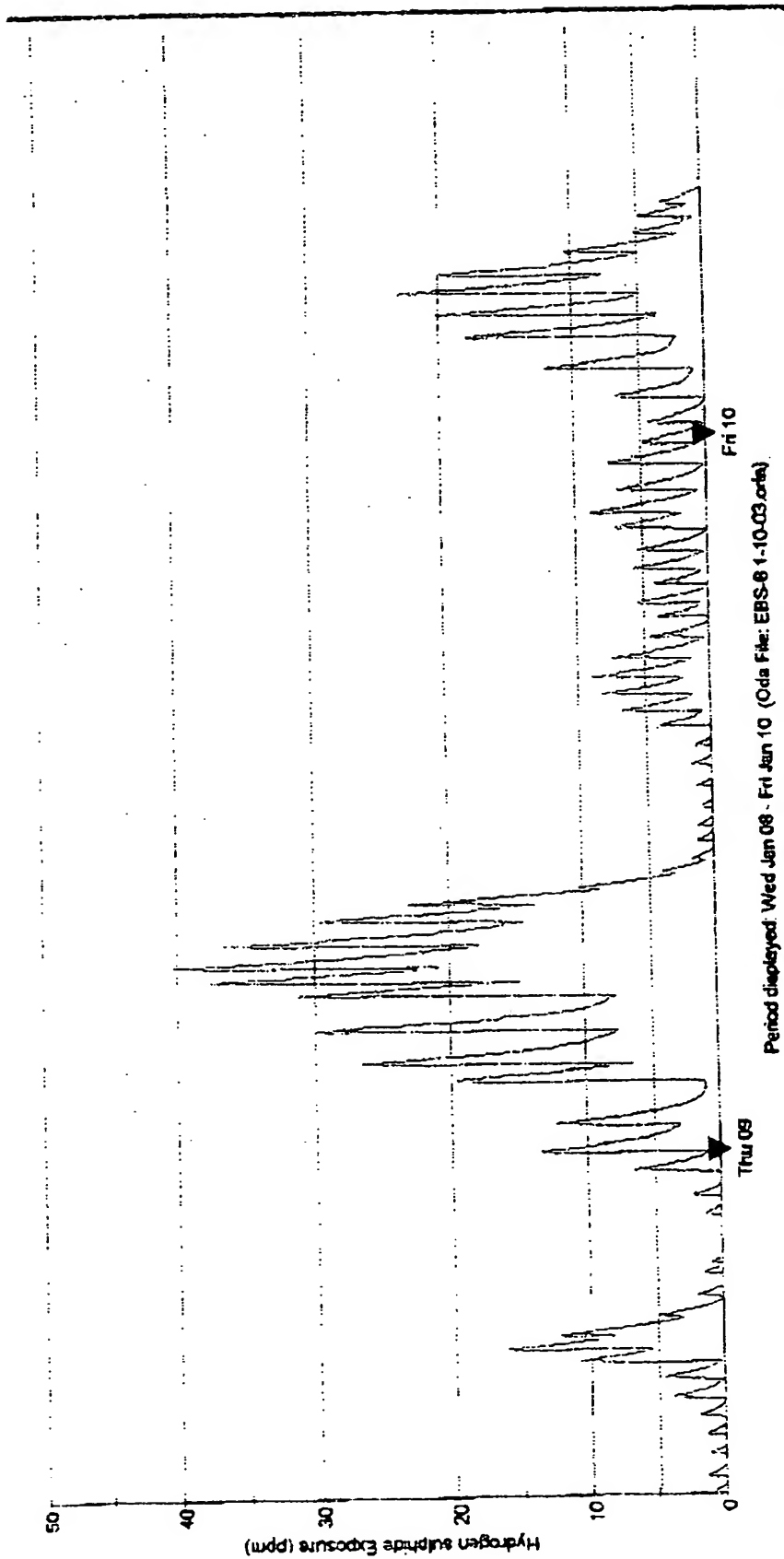
EBS-8-1-8-03 THIS IS WITH THE O2 GENERATOR RUNNING (OdaLog: OL05102433)



INST : Min (-3.20 ppm) Max (57.10 ppm) Average (10.57 ppm) Day Transition

GENERATOR WAS SHUT OFF FROM MON AT 1800HRS TO 0730 ON TUES.

EBS 8 1-10-03 (OdaLog: OL03021316)



Average (4.84 ppm)

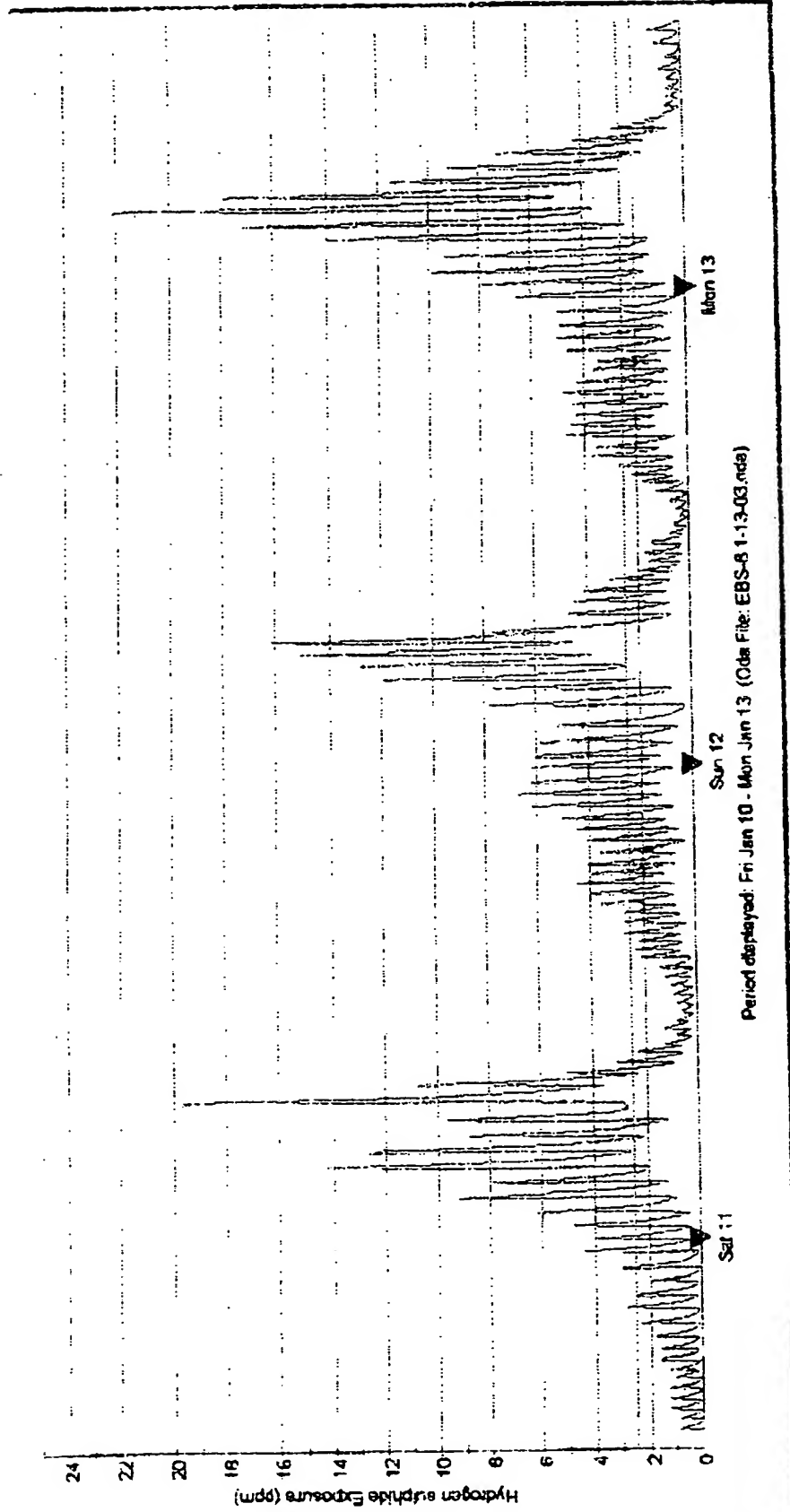
Day Transition

INST: Min (-1.00 ppm) Max (40.20 ppm)

OZONE GENERATOR ON AT EBS 2

3

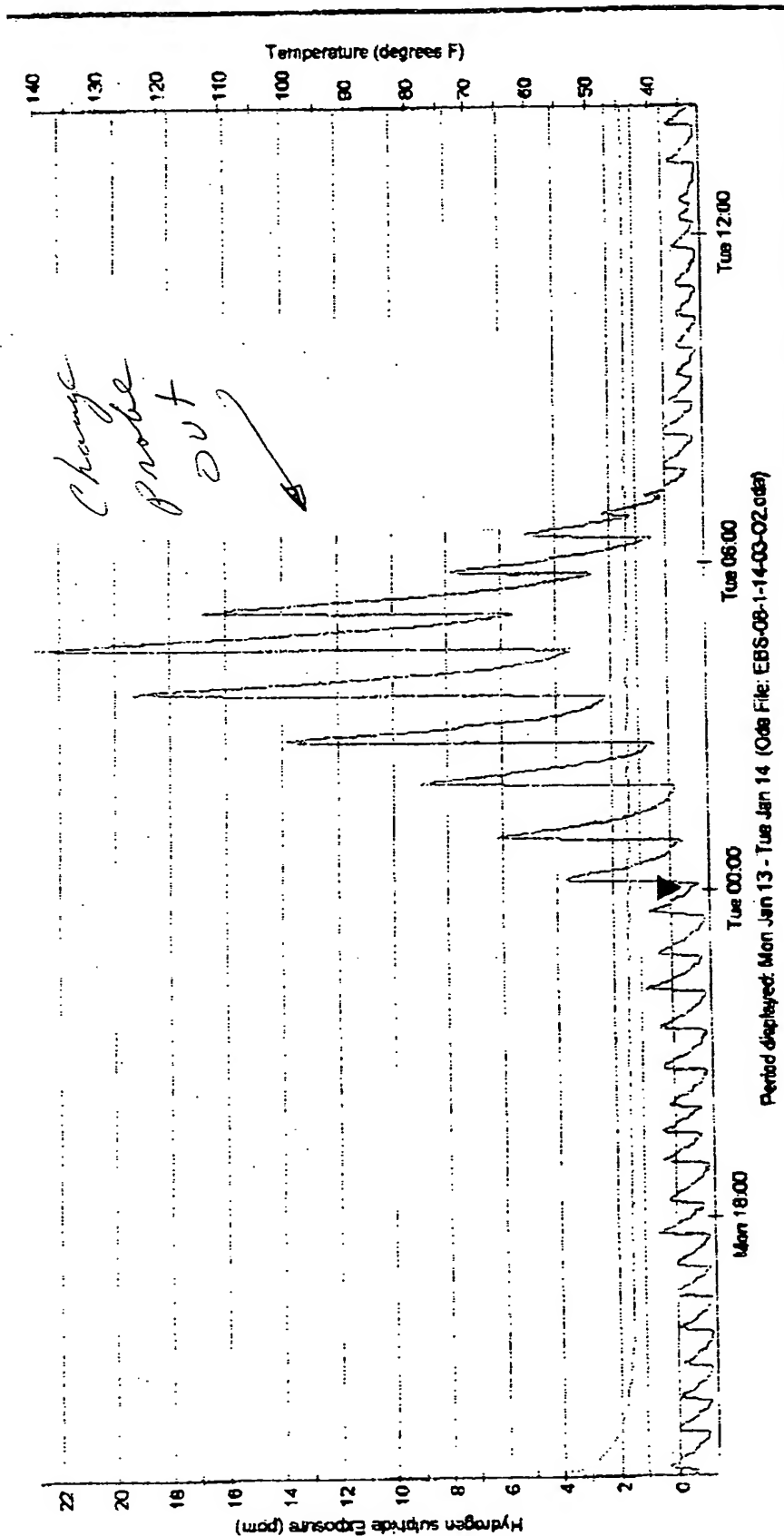
EBS 8 1-13-03 (OdaLog: OL05102433)



INST: Min (-2.20 ppm) Max (22.20 ppm) Day Transition Average (2.51 ppm)

OZ GENERATOR IS RUNNING AT EBS - 8

EBS-08-1-14-03-02 TESTING (OdaLog: OL03021316)



Temperature

Average (1.01 ppm)

Day Transition

INVT: Min (-1.40 ppm) Max (22.50 ppm)

ORP +34, OUTSIDE TEMP 16, SAMPLE TEMP 47, PH 8.74, SII FINE 0